Contents

Number 1 January 1989

Editorial Board, 1989 1

Guest Reviewers for The Annals of Thoracic Surgery 2

Commentary

Toward Fifty 3
Thomas B. Ferguson, MD

More Change 6
Herbert Sloan, MD

The Early Years 4
Robert G. Ellison, MD

Looking Ahead 8
George G. Lindesmith, MD

Presidential Address

Notes on the Windpipe 9
Hermes C. Grillo, MD

Herbert Sloan Lecture

Introduction to the Sloan Lecture 27
Hermes C. Grillo, MD

Lung Transplantation 28
Joel D. Cooper, MD

Original Articles

The Asymptomatic Child a Long Time After the Mustard Operation for Transposition of the Great Arteries 45
Margreet Th. E. Bink-Boelkens, MD, Arend Bergstra, Adri H. Cromme-Dijkhuis, MD, Anton Eygelaar, MD, Martin J. Landsman, MD, and Eduard L. Mooyaart, MD

Improved Early Results After Aortic Valve Replacement: Analysis by Surgical Time Frame 51
Francesco Di Lello, MD, Robert J. Flemma, MD, Alfred J. Anderson, MS, Donald C. Mullen, MD, Leonard H. Kleinman, MD, and Paul H. Werner, MD

Case Report

Use of a Total Wash-Out Method in an Open Heart Operation 57
Ming-Chung Lee, MD, Chau-Hsiung Chang, MD, and Ming-Jang Hsieh, MD

How to Do It

A Technique for Spot Application of Fibrin Glue During Open Heart Operations 59
Raul Garcia-Rinaldi, MD, PhD, Pat Simmons, RN, Victor Salcedo, MD, and Carol Howland, BA

Classics in Thoracic Surgery

Superior Vena Cava–Pulmonary Artery Shunt 62
William W. L. Glenn, MD

Key References

Endoscopy, Mediastinoscopy, and Thoracoscopy 65
Richard B. McElvein, MD

Report

Testimony Before the Physicians' Payment Review Commission 68
George Miller, MD

Circulatory Support 1988

Program 73

Panel 1: Patient Selection 77
Moderator: D. Glenn Pennington, MD
Panelists: Lyle D. Joyce, MD, Walter E. Pae, Jr, MD, and John A. Burkholder, MD

Panel 2: Intraoperative Management 82
Moderator: J. Donald Hill, MD
Panelists: Robert L. Hardesty, MD, William A. Baumgartner, MD, and
Daniel M. Rose, MD

Panel 3: Bleeding and Anticoagulation 88
Moderator: Jack G. Copeland III, MD
Panelists: Laurence A. Harker, MD, J. Heinrich Joist, MD, and William C. DeVries, MD

Panel 4: Other Postoperative Complications 96
Moderator: William S. Pierce, MD
Panelists: Laman A. Gray, Jr, MD, Lawrence R. McBride, MD, and
O. Howard Frazier, MD

Panel 5: Weaning and Bridging 102
Moderator: George J. Magovern, MD
Panelists: Leonard A. R. Golding, MD, Philip E. Oyer, MD, and Christian Cabrol, MD

Circulatory Support With a Centrifugal Pump as a Bridge to Cardiac Transplantation 108
R. Morton Bolman III, MD, James L. Cox, MD, William Marshall, MD,
Nicholas Kouchoukos, MD, Thomas L. Spray, MD, Connie Cance, RN,
Randall E. Genton, MD, and Jeffrey Saffitz, MD, PhD

Surgical Techniques for the Implantation of Heterotopic Prosthetic Ventricles 113
Brian L. Ganzel, MD, Laman A. Gray, Jr, MD, A. David Slater, MD, and
Constantine Mavroudis, MD

Percutaneous Cardiopulmonary Bypass: Application and Indication for Use 121
Steven J. Phillips, MD, Robert H. Zeff, MD, Chamnahn Kongtahworn, MD,
James R. Skinner, MD, Richard S. Toon, MD, André Grignon, MD,
R. Michael Kennerly, MD, William Wickemeyer, MD, and L. A. Iannone, MD

Technique and Results With a Roller Pump Left and Right Heart Assist Device 124
D. M. Rose, MD, M. Connolly, MD, J. N. Cunningham, Jr, MD, and F. C. Spencer, MD

Use of the Pierce–Donachy Ventricular Assist Device in Patients With Cardiogenic Shock After Cardiac Operations 130
D. Glenn Pennington, MD, Lawrence R. McBride, MD, Marc T. Swartz, BA, Kirk R. Kanter, MD, George C. Kaiser, MD, Hendrick B. Barner, MD, Leslie W. Miller, MD, Keith S. Naunheim, MD, Andrew C. Fiore, MD, and Vallee L. Willman, MD

SWAT Team Approach to Ventricular Assistance 136
J. P. Brugger, PhD, L. Bonandi, MD, M. Meli, MD, M. Lichtsteiner, MD, R. Odermatt, PhD, and Ch. Hahn, MD

Implantable Electrical Left Ventricular Assist System: Bridge to Transplantation and the Future 142
Peer M. Portner, PhD, Philip E. Oyer, MD, PhD, D. Glenn Pennington, MD, William A. Baumgartner, MD, Bartley P. Griffith, MD, William R. Frist, MD, Donald J. Magilligan, Jr, MD, George P. Noon, MD, Narayanan Ramasamy, PhD, Phillip J. Miller, MS, and Jal S. Jassawalla, MS

Total Artificial Heart: Survival and Complications 151
C. Muneretto, MD, E. Solis, MD, A. Pavie, MD, Ph. Leger, MD, I. Gandjbakhch, MD, J. Szefner, MD, V. Bors, MD, C. Piazza, MD, A. Cabrol, MD, and C. Cabrol, MD

Interim Use of the Jarvik-7 Artificial Heart: Lessons Learned at Presbyterian-University Hospital of Pittsburgh 158
Bartley P. Griffith, MD

Bridging to Cardiac Transplantation 167
J. Donald Hill, MD

Current Status of Permanent Total Artificial Hearts 172
Paul K. Davis, MD, Gerson Rosenberg, PhD, Alan J. Snyder, PhD, and William S. Pierce, MD

Review of Recent Books

Cancer of the Oesophagus (Clinical Cancer Monographs; Vol 1), edited by Hugoe R. Matthews, John A. H. Waterhouse, Jean Powell, Christopher C. McConkey, and Janet E. Robertson 50
Richard M. Peters, MD

Therapy of Lung Metastases. Proceedings of the Symposium "Die Therapie von Lungenmetastasen im interdisziplinaren Konzept," Heidelberg, June 1986, edited by P. Drings and I. Vogt-Moykopf 56
Alex G. Little, MD

Guides to Clinical Aspiration Biopsy: Lung, Pleura, and Mediastinum, by Liange-Che Tao 61
Thomas W. Shields, MD

Announcements

Forthcoming Articles A-12

Information for Authors A-15, 16

Notice From the American Board of Thoracic Surgery 58, 64
1988 Meeting, Southern Thoracic Surgical Association 72
Events of Interest A-25, 26
Call for Abstracts, The Society of Thoracic Surgeons A-27, 28
Classified Ads A-30, 31, 32, 33
Index to Advertisers A-37

Number 2 February 1989

Editorial

Human Immunodeficiency Virus and the Patient Who Needs a Cardiac Operation 179
Robert W. M. Frater, MD

Original Articles

Human Immunodeficiency Virus and the Cardiac Surgeon: A Survey of Attitudes 182
Douglas Condit, PA-C, and Robert W. M. Frater, MD

Reperfusion Injury in the Lung Preserved for 24 Hours 187
Douglas E. Paull, MD, Blair A. Keagy, MD, Eric J. Kron, BS, and Benson R. Wilcox, MD

In Situ Prosthetic Graft Replacement for Mycotic Aneurysm of the Aorta 193
Florence Y. Chan, MD, E. Stanley Crawford, MD, Joseph S. Coselli, MD, Hazim J. Safi, MD, and Temple W. Williams, Jr, MD

Pneumothorax in Cystic Fibrosis: A 26-Year Experience 204
Michael L. Spector, MD, and Robert C. Stern, MD

Cryopreservation of Canine Trachea: Functional and Histological Changes 208
Claude Deschamps, MD, Victor F. Trastek, MD, Jonathan L. Ferguson, MD, William J. Martin, MD, Thomas V. Colby, MD, Peter C. Pairolero, MD, and W. Spencer Payne, MD

Long-term Results in Neonates With Pulmonary Atresia and Intact Ventricular Septum 213
John G. Coles, MD, Robert M. Freedom, MD, Nancy E. Lightfoot, PhD, Himansu K. Dasmahapatra, MD, William G. Williams, MD, George A. Trusler, MD, and Patricia E. Burrows, MD

Ten Years' Experience With the Senning Operation for Transposition of the Great Arteries: Physiological Results and Late Follow-up 218
Harvey W. Bender, Jr, MD, James R. Stewart, MD, Walter H. Merrill, MD, John W. Hammon, Jr, MD, and Thomas P. Graham, Jr, MD

Continued Assessment of the Combined Collis-Nissen Operation 224
Mack C. Stirling, MD, and Mark B. Orringer, MD

Closure of Chronic Postpneumonectomy Bronchopleural Fistula Using the Transsternal Transpericardial Approach 231
Robert J. Ginsberg, MD, F. Griffith Pearson, MD, Joel D. Cooper, MD, Ernest Spratt, MD, Jean Deslauriers, MD, Melvyn Goldberg, MD, Robert D. Henderson, MD, and Donald Jones, MD

Clinical and Hemodynamic Results After Mitral Valve Replacement in Patients With Obstructive Hypertrophic Cardiomyopathy 236
Charles L. McIntosh, MD, PhD, Gail J. Greenberg, BA, Barry J. Maron, MD, Martin B. Leon, MD, Richard O. Cannon III, MD, and Richard E. Clark, MD

Why Is the Lower Torso Protected in Traumatic Asphyxia? A New Hypothesis 247
Alan Thompson, Jr, MD, FRCS(C), Fernando F. Illescas, MD, FRCP(C), and Ray C.-J. Chiu, MD, PhD, FRCS(C)

Penetrating Wounds to the Heart: A Wartime Experience 250
Victor A. Jebara, MD, and Bechir Saade, MD

Correction of Aortico–Left Ventricular Tunnel During the First Day of Life 254
B. Hucin, MD, DSc, P. Horvath, MD, J. Skovránek, MD, CSc, O. Reich, MD, and M. Samánek, MD, DSc

Cryosurgical Ablation of Accessory Atrioventricular Pathways Without Cardiopulmonary Bypass: An Epicardial Approach for Wolff-Parkinson-White Syndrome 257
Sunao Watanabe, MD, Hitoshi Koyanagi, MD, Masahiro Endo, MD, Yoko Yagi, MD, Akira Shiikawa, MD, and Hiroshi Kasanuki, MD

Significance of Extramucosal Residual Tumor at the Bronchial Resection Margin 265
Larry R. Kaiser, MD, Phillip Fleshner, MD, Steven Keller, MD, and Nael Martini, MD

Delayed Primary Closure After Sternal Wound Infection 270
Joel A. Johnson, MD, Warren E. Gall, MD, A. Erik Gundersen, MD, and Thomas H. Cogbill, MD

Neonatal Pneumopericardium With High-Frequency Ventilation 274
Richard C. Neal, MAJ, David E. Beck, MAJ, V. C. Smith, MAJ, Donald M. Null, COL, All USAF, MC

Aortic Allografts: Reconstruction of Right Ventricle–Pulmonary Artery Continuity 278
Kevin Turley, MD, Kerry Turley, RN, and Paul A. Ebert, MD

Diagnosis of Traumatic Thoracic Aortic Rupture: A 10-Year Retrospective Analysis 282
Harry B. Kram, MD, Paul L. Appel, MPA, David A. Wohlmuth, MD, and William C. Shoemaker, MD

Effect of Cold Cardioplegic Solution and Hypothermia on Response to Acetylcholine in Perfused Epicardial Coronary Artery of Pig 287
Nobuyuki Furusho, MD, Haruo Araki, MD, Katsuhide Nishi, MD, and Yoshimasa Miyauchi, MD

Left Coronary Ostial Stenosis: Comparison With Left Main Coronary Artery Stenosis 293
Hendrick B. Barner, MD, Jeffry Reese, MD, John Standeven, MD, Lawrence R. McBride, MD, D. Glenn Pennington, MD, Vallee L. Willman, MD, and George C. Kaiser, MD

Prediction of Post–Cardiopulmonary Bypass Cardiac Output 297
Ronald S. Chung, BS, Donald J. Magilligan, Jr, MD, R. Roy Eisiminger, BS, Michael A. Fried, BS, Janet A. Serwatowski, BS, and Karla S. Gerdeman, BS

Case Reports

Homograft Aortic Root Replacement to Correct Infective Endocarditis Requiring Seven Open Cardiac Procedures 300
Richard F. Saldanha, MS, MCh, Jai Raman, MBBS, Michael Feneley, MD, FRACP, and Alan E. Farnsworth, FRACS

Annuloplastic Reconstruction for Common Atrioventricular Valvular Regurgitation in Right Isomerism 302
Yutaka Okita, MD, Shigehito Miki, MD, Kenji Kusuhara, MD, Yuichi Ueda, MD, Takafumi Tahata, MD, Kazuo Yamanaka, MD, Shoichiro Shiraishi, MD, and Tokio Tamura, MD

Pleuropulmonary Actinomycosis Associated With a Systemic-to-Pulmonary Artery Fistula and Contralateral Metastatic Back Mass 305
A. Ron Miller, MD, John M. Robertson, MD, Ronald J. Nelson, MD, Carlos A. Castro, MD, and Paul S. Dickman, MD

Successful Management of Aberrant Subclavian Artery–Esophageal Fistula in an Infant 308
Philip C. Guzzetta, MD, Kurt D. Newman, MD, and Eric Ceithaml, MD

Vascular Sling With Tracheomalacia: Surgical Management 310
Vincent R. Conti, MD, and Thom E. Lobe, MD

Transpericardial Bronchial Closure With Omentopexy for Postpneumonectomy Bronchopleural Fistula 312
Hiroshi Saito, MD, Toshihiko Tatsuzawa, MD, Hirokatsu Kikkawa, MD, Makoto Hirano, MD, and Mitsuaki Sakatoku, MD

How to Do It

Percutaneous Endoscopic Tracheostomy 314
A. Paul, MD, D. Marelli, MD, R. C.-J. Chiu, MD, PhD, K. H. Vestweber, MD, and D. S. Mulder, MD

Cardioplegia Delivery by Combined Aortic Root and Coronary Sinus Perfusion 316
Thomas Kalmbach, MD, and Joginder N. Bhayana, MD

New Technique for Repair of Ascending Thoracic Aortic Dissections 318
Bernard Vasseur, MD, and Graeme L. Hammond, MD

A Method of Applying Fibrin Sealant Using an Atomizing Needle 320
Douglas H. Joyce, DO, Lynn B. McGrath, MD, and Lorenzo Gonzalez-Lavin, MD

Classics in Thoracic Surgery

Open Heart Surgery in Infancy **321**
Paul A. Ebert, MD

Collective Review

Ventricular Aneurysm due to Blunt Chest Injury **322**
J. G. Grieco, MD, A. Montoya, MD, H. J. Sullivan, MD, M. Bakhos, MD, B. K. Foy, MD, B. Blakeman, MD, and R. Pifarré, MD

Correspondence

Left Ventricular Stress During Extracorporeal Membrane Oxygenation **330**
Howard I. Axelrod, MD, F. Gregory Baumann, PhD, and Aubrey C. Galloway, MD

Muscle-Sparing Thoracotomy **330**
Michel Noirclerc, MD

Foreign Body-Induced Hemoptysis **330**
Robert Lowe, MD, and Eric Shore, MD

Right Atrial Cardioplegia: A Safe Procedure for Myocardial Protection **331**
Jean Noël Fabiani, MD, Victor Jebara, MD, and Alain Carpentier, MD, PhD

Reply **331**
Gerald D. Buckberg, MD

Reply **332**
James Diehl, MD, and Richard J. Cleveland, MD

A Simplified Method for Pleural Abrasion **332**
D. A. Bognolo, MD, M. B. Bloom, MD, E. A. Rendina, MD, and F. Venuta, MD

Review of Recent Books

International Trends in General Thoracic Surgery. Volume 3. Benign Esophageal Disease, edited by Tom R. DeMeester and Hugoe R. Matthews **230**
Kamal A. Mansour, MD

The Esophagus: Medical and Surgical Management, edited by Lucius Hill, Richard Kozarek, Richard McCallum, and C. Dale Mercer **277**
Robert J. Ginsberg, MD

Endoscopic Laser Surgery Handbook, edited by Stanley M. Shapshay **307**
Alphonse Jeanneret, MD, and André Duranceau, MD

Announcements

Information for Authors **A-15, 16**

Forthcoming Articles **A-19**

Notice From The Society of Thoracic Surgeons 223
Notice From the American Board of Thoracic Surgery 246, 292
Notice From the Southern Thoracic Surgical Association 249
Events of Interest A-35, 36
Classified Ads A-37, 38, 39, 40, 41
Index to Advertisers A-45

Number 3 March 1989

Editorials

Choosing Cardiothoracic Surgical Residents 333
Hermes C. Grillo, MD, and Benson R. Wilcox, MD

Esophagectomy for Achalasia: Who, When, and How Much? 334
F. Henry Ellis, Jr, MD, PhD

Does Transfusion Modify the Outcome of Cancer Resections? 336
Paul A. Kirschner, MD

Presidential Address

Cardiac Transplantation in a Private Hospital 338
O. B. Harrington, MD

Original Articles

Esophageal Resection for Achalasia: Indications and Results 340
Mark B. Orringer, MD, and Mack C. Stirling, MD

Effect of Perioperative Blood Transfusion on Outcome in Patients With Surgically Resected Lung Cancer 346
D. W. O. Moores, MD, S. Piantadosi, MD, PhD, and M. F. McKneally, MD, PhD, for the Lung Cancer Study Group

Porcine Versus Pericardial Bioprostheses: A Comparison of Late Results in 1,593 Patients 352
L. Conrad Pelletier, MD, Michel Carrier, MD, Yves Leclerc, MD, Gilles Lepage, MD, Pierre deGuise, MD, and Ihor Dyrda, MD

Esophageal Function in Patients With Reflux-Induced Strictures and Its Relevance to Surgical Treatment 362
Giovanni Zaninotto, MD, Tom R. DeMeester, MD, Cedric G. Bremner, MD, Thomas C. Smyrk, MD, and Shih-Chuan Cheng, PhD

Use of Silicone Stents in the Management of Airway Problems 371

J. D. Cooper, MD, F. G. Pearson, MD, G. A. Patterson, MD, T. R. J. Todd, MD, R. J. Ginsberg, MD, M. Goldberg, MD, and P. Waters, MD

Effect of Sodium Nitroprusside on Spinal Cord Perfusion and Paraplegia During Aortic Cross-Clamping 379

Corrado P. Marini, MD, Philip E. Grubbs, MD, Bruce Toporoff, MD, Thomas T. Woloszyn, MD, Matthew S. Coons, MD, Anthony J. Acinapura, MD, and Joseph N. Cunningham, MD

Postoperative Conduction Disturbances: A Comparison of Blood and Crystalloid Cardioplegia 384

Steven R. Gundry, MD, Alejandro Sequeira, MD, Thomas R. Coughlin, MD, and Joseph S. McLaughlin, MD

Bronchogenic Carcinoma in Patients Under Age 40 391

Joseph G. Antkowiak, MD, Anne-Marie Regal, MD, and Hiroshi Takita, MD

Mucoepidermoid Lung Tumors 394

Richard F. Heitmiller, MD, Douglas J. Mathisen, MD, Judith A. Ferry, MD, Eugene J. Mark, MD, and Hermes C. Grillo, MD

Apparent Coagulopathy Caused by Infusion of Shed Mediastinal Blood and Its Prevention by Washing of the Infusate 400

Lee D. Griffith, MD, Glenn F. Billman, MD, Pat O. Daily, MD, and Thomas A. Lane, MD

Noninvasive Detection of Cardiac Allograft Rejection by Analysis of the Unipolar Peak-to-Peak Amplitude of Intramyocardial Electrograms 407

Michael Rosenbloom, MD, John C. Laschinger, MD, Jeffrey E. Saffitz, MD, PhD, James L. Cox, MD, and R. Morton Bolman III, MD, with the technical assistance of Barry H. Branham, MS

Bronchial Carcinoids: A Review of 60 Patients 412

Federico Rea, MD, Rino Binda, MD, Giorgio Spreafico, MD, Francesco Calabrò, MD, Luigi Bonavina, MD, Angiolo Cipriani, MD, Giuseppe Di Vittorio, MD, Ambrogio Fassina, MD, and Francesco Sartori, MD

Bidirectional Cavopulmonary Shunts: Clinical Applications as Staged or Definitive Palliation 415

Ennio Mazzera, MD, Antonio Corno, MD, Sergio Picardo, MD, Roberto Di Donato, MD, Bruno Marino, MD, Dina Costa, MD, and Carlo Marcelletti, MD

Internal Mammary Artery Grafts: The Shortest Route to the Coronary Arteries 421

Thomas J. Vander Salm, MD, Sultan Chowdhary, MD, O. N. Okike, MD, A. Thomas Pezzella, MD, and Michael K. Pasque, MD

Incidence of Residual Defects Determining the Clinical Outcome After Correction of Tetralogy of Fallot: Postoperative Late Follow-up 428

Giovanni Calza, MD, Giuseppe Panizzon, MD, Salvatore Rovida, MD, and Jacques Aigueperse, MD

Björk-Shiley Strut Fracture and Disc Escape: Literature Review and a Method of Disc Retrieval 436

P. N. Hendel, MB, BS, FRACS

Thermal Coronary Angiography: A Method for Assessing Graft Patency and Coronary Anatomy in Coronary Bypass Surgery 441

Friedrich W. Mohr, MD, Jack Matloff, MD, Warren Grundfest, MD, Aurelio Chaux, MD, Robert Kass, MD, Carlos Blanche, MD, Po Tsai, MD, Frank Litvack, MD, and James Forrester, MD

Mediastinal Fibrin Glue: Hemostatic Effect and Tissue Response in Calves 450

J. W. Baker, MD, W. D. Spotnitz, MD, T. L. Matthew, MD, R. E. Fechner, MD, and S. P. Nolan, MD

Case Reports

Pacing Lead Fracture After a Deceleration Injury 453

J. G. Grieco, MD, P. J. Scanlon, MD, and R. Pifarré, MD

Entrapment of Broken Guidewire in the Left Main Coronary Artery During Percutaneous Transluminal Coronary Angioplasty 455

Gulshan K. Sethi, MD, T. Bruce Ferguson, Jr, MD, Gary Miller, MD, and Stewart M. Scott, MD

Left Subclavian Arterioesophageal Fistula Induced by a Foreign Body 458

C. K. Mok, MB, BS, C. S. W. Chiu, MB, BS, and H. H. C. Cheung, MB, BS

Familial Multiple-Organ Arterial Ectasia With Massive Hemoptysis 461

Chia Chuen Su, MD, and William T. Su

Systemic-to-Pulmonary Artery Shunt Using the Internal Mammary Artery 464

Michael T. Longaker, MD, Scot Merrick, MD, Timothy M. Crombleholme, MD, Jacob C. Langer, MD, Edward D. Verrier, MD, and Kevin Turley, MD

How to Do It

Use of a New Stapling Instrument for Permanent Occlusion of the Aorta in the Surgical Procedure for Thromboexclusion 466

Shigetoh Odagiri, MD, Akira Shimazu, MD, Masatake Shimokawaji, MD, Yoshiya Ishikura, MD, and Hiroshi Yoshimatsu, MD

Angiocatheter Coronary Artery Reperfusion Before Cardioplegia for Evolving Myocardial Infarction 470

Hiroshi Nishida, MD, Hooshang Soltanzadeh, MD, Kent C. Thieman, MD, and Ronald K. Grooters, MD

Is the Shunt Patent? 472

J. G. Schutz, MBBCh, M. J. Antunes, MD, MMed, PhD, and R. H. Kinsley, MBBCh, FCS (SA)

Sutureless Fixation of Long Aortocoronary Saphenous Vein Grafts With Oxidized Regenerated Cellulose 473

Francesco Di Lello, MD, Donald C. Mullen, MD, and Robert J. Flemma, MD

Classics in Thoracic Surgery

In the Beginning 475

Charles A. Hufnagel, MD

Collective Review

Primary Small Cell Carcinoma of the Esophagus 477
David W. McFadden, MD, Marek Rudnicki, MD, and Mark A. Talamini, MD

Key References

Congenital Lesions of the Lungs 481
T. Bruce Ferguson, Jr, MD

Correspondence

Extrinsic Obstruction of the Medtronic-Hall Disc Valve in the Mitral Position 483
Ganesh P. Pai, MD, and Joseph W. Rubin, MD, CM

Mobilization Technique in Total Esophagectomy 483
H. Hashimi, FRCS, and S. Sabanathan, FRCS

Budd-Chiari Syndrome—Pathogenesis and Operative Repair 483
Solomon Victor, FRCS, FRCP, V. Jayanthi, MD, and N. Madanagopalan, MD, FRCP

Traumatic Rupture of Ascending Aorta and Left Main Bronchus 484
James C. Jones, MD

Reply 484
Robert F. Wilson, MD

Treatment of Impending Sudden Cardiac Death 484
Levi Watkins, Jr, MD

Reply 485
G. Frank O. Tyers, MD, FRCS (C)

Complication of Aortic Dissection 485
Panagiotis N. Symbas, MD

Tunneling of Defibrillator Leads 486
G. Hossein Almassi, MD, and Gordon N. Olinger, MD

Review of Recent Books

International Trends in General Thoracic Surgery, Vol 4. Esophageal Cancer, edited by Norman C. Delarue, Earle W. Wilkins, Jr, and John Wong 378
Douglas J. Mathisen, MD

Cardiac Arrhythmias: Recent Progress in Investigation and Management, edited by T. Iwa and G. Fontaine 449
Creighton B. Wright, MD

Books Received 463

Announcements

Forthcoming Articles	**A-11**
Information for Authors	**A-15, 16**
Notice From The Society of Thoracic Surgeons	**345**
Notice From the American Board of Thoracic Surgery	**351, 435**
Notice From the Southern Thoracic Surgical Association	**420**
Call for Abstracts, the Southern Thoracic Surgical Association	**A-23, 24**
Events of Interest	**A-25, 26**
Classified Ads	**A-27, 28, 29, 30**
Index to Advertisers	**A-37**

Number 4 April 1989

Editorials

The "Incomplete" Resection **487**

Thomas W. Shields, MD

Mortality Rates and Risk Factors in Coronary Bypass Surgery **489**

Richard P. Anderson, MD

Truncus Arteriosus **491**

Aldo R. Castaneda, MD

Original Articles

Mortality of Coronary Artery Bypass Grafting Before and After the Advent of Angioplasty **493**

Paul K. Davis, MD, Salvatore A. Parascandola, MD, Cynthia A. Miller, BS, David B. Campbell, MD, John L. Myers, MD, Walter E. Pae, MD, William S. Pierce, MD, Craig B. Wisman, MD, and John A. Waldhausen, MD

Repair of Truncus Arteriosus in the Neonate and Young Infant **499**

Edward L. Bove, MD, Robert H. Beekman, MD, A. Rebecca Snider, MD, Louise B. Callow, RN, MSN, David J. Underhill, MD, Albert P. Rocchini, MD, Macdonald Dick II, MD, and Amnon Rosenthal, MD

Comparison of Coronary Artery Bypass Grafting and Percutaneous Transluminal Coronary Angioplasty as Initial Treatment Strategies **507**

Cary W. Akins, MD, Peter C. Block, MD, Igor F. Palacios, MD, Herman K. Gold, MD, Diane L. Carroll, MSN, and Gary L. Grunkemeier, PhD

Late Reoperation for Systemic Atrioventricular Valve Regurgitation After Repair of Congenital Heart Defects 517

John J. Lamberti, MD, Thomas S. Jensen, MD, Todd M. Grehl, MD, James H. Oury, MD, J. Deane Waldman, MD, Stanley E. Kirkpatrick, MD, Lily George, MD, James W. Mathewson, MD, and Robert L. Spicer, MD

Mitral Valve Annuloplasty: The Effect of the Type on Left Ventricular Function 524

Tirone E. David, MD, Masashi Komeda, MD, Charles Pollick, MD, and Robert J. Burns, MD

Predonated Autologous Blood Use in Elective Cardiac Surgery 529

Lewis W. Britton, MD, D. Ted Eastlund, MD, Stanley W. Dziuban, MD, Eric D. Foster, MD, Joseph B. McIlduff, MD, Thomas E. Canavan, MD, and Thomas M. Older, MD

When Should the Hypoplastic Right Ventricle Be Used in a Fontan Operation? An Experimental and Clinical Correlation 533

Michel N. Ilbawi, MD, Farouk S. Idriss, MD, Serafin Y. DeLeon, MD, Vincent A. Kucich, MD, Alexander J. Muster, MD, Milton H. Paul, MD, and Vincent R. Zales, MD

The Value of Protective Isolation Procedures in Cardiac Allograft Recipients 539

Thomas R. Walsh, MD, Jane Guttendorf, MSN, Stephen Dummer, MD, Robert L. Hardesty, MD, John M. Armitage, MD, Robert L. Kormos, MD, and Bartley P. Griffith, MD

Right Atrial Approach for Surgical Correction of Tetralogy of Fallot 546

Charles A. Dietl, MD, Alberto R. Torres, MD, Mario E. Cazzaniga, MD, and Rene G. Favaloro, MD

Myocardial Salvage With Trolox and Ascorbic Acid for an Acute Evolving Infarction 553

Donald A. G. Mickle, MD, Ren-Ke Li, MD, Richard D. Weisel, MD, Peter L. Birnbaum, MD, Tai-Wing Wu, PhD, George Jackowski, PhD, M. Mindy Madonik, BSc, Graham W. Burton, PhD, and Keith U. Ingold, PhD

Composite Valve-Graft Replacement of Aortic Root Using Separate Dacron Tube for Coronary Artery Reattachment 558

Joseph S. Coselli, MD, and E. Stanley Crawford, MD

Cryoablation of Septal Pathways in Patients With Supraventricular Tachyarrhythmias 566

Anthony W. Lee, MD, Fred A. Crawford, Jr, MD, Paul C. Gillette, MD, and Susan M. Roble, PA-C

Coronary Artery Bypass Grafting for Unstable Angina Pectoris: Risk Analysis 569

Keith S. Naunheim, MD, Andrew C. Fiore, MD, David C. Arango, MD, D. Glenn Pennington, MD, Hendrick B. Barner, MD, Lawrence R. McBride, MD, Howard H. Harris, MD, Vallee L. Willman, MD, and George C. Kaiser, MD

Deleterious Effects of Shock in Internal Mammary Artery Anastomoses 575

L. K. von Segesser, MD, K. Lehmann, MD, and M. Turina, MD

Extrathoracic and Transthoracic Management of Vascular Disease of the Aortic Arch Branches: A 16-Year Experience 580

Carlo Farina, MD, Antonio V. Sterpetti, MD, Richard D. Schultz, MD, Richard J. Feldhaus, MD, and Kathy Davenport, RN, RVT

Anticipation of Bypass Surgery: Can It Induce Silent Myocardial Ischemia? 586

Sidney Plawes, MD, Shlomo Charlap, MD, Alvin Greengart, MD, Gerald Hollander, MD, Jacob Shani, MD, and Edgar Lichstein, MD

Anticoagulant Therapy in Children With Prosthetic Valves 589

P. Syamasundar Rao, MD, Laszlo Solymar, MD, Mohammed K. Mardini, MD, Mohammed E. Fawzy, MD, and Gene Guinn, MD

Repair of Large Muscular Ventricular Septal Defects in Infants Employing Left Ventriculotomy 593

Nancy McDaniel, MD, Howard P. Gutgesell, MD, Stanton P. Nolan, MD, and Irving L. Kron, MD

Fifteen-Year Results of Coronary Artery Bypass for Isolated Left Anterior Descending Coronary Artery Disease 595

Duncan A. Killen, MD, Malcolm Arnold, MD, David R. McConahay, MD, Suchint Wathanacharoen, MD, and William A. Reed, MD

Latissimus Dorsi Dynamic Cardiomyoplasty 600

J. C. Chachques, MD, P. A. Grandjean, MS, and A. Carpentier, MD, PhD

Case Reports

Mitral Valve Fibroelastoma 605

Michael E. Gorton, MD, and Hooshang Soltanzadeh, MD

Percutaneous Cardiopulmonary Bypass for the Treatment of Hypothermic Circulatory Collapse 608

Glenn W. Laub, MD, Damian Banaszak, MD, John Kupferschmid, MD, George J. Magovern, MD, and Joseph C. Young, MD

Traumatic Rupture of the Pulmonary Artery 612

Michael P. Collins, MD, and George C. Robinson, MD

Extracorporeal Pulsatile Biventricular Support After Cardiac Transplantation 614

Timothy B. Icenogle, MD, Richard J. Williams, MD, Richard G. Smith, MSEE, CCE, Marilyn Cleavinger, MSBME, M. André Vasu, MD, Birger Rhenman, MD, and Jack G. Copeland, MD

Survival of a Recipient of Renal Transplantation After Pulmonary Phycomycosis 617

Jack Hsu, MD, Julie A. Clayman, MD, and Alexander S. Geha, MD

How to Do It

Internal Banding for Palliation of Truncus Arteriosus in the Neonate 620

J. Nilas Young, MD, M. Cristina Piancastelli, MD, James E. Harrell, Jr, MD, Christian Hardy, MD, Edward N. Ahearn, and Roger R. Ecker, MD

Localized Pericardial Flap to Prevent Tension on Left Internal Mammary Artery Grafts 623
David S. Starr, MD, and J. Paul Moore, MD

A Technique for Aortic Root Replacement by an Aortic Allograft 625
David C. McGiffin, FRACS, and Mark F. O'Brien, FRCS, FRACS

Classics in Thoracic Surgery

An Early Approach to the Repair of Ruptured Mitral Chordae 628
Dwight C. McGoon, MD

Current Review

Surgical Therapy in the Management of Coronary Anomalies: Emphasis on Utility of Internal Mammary Artery Grafts 630
Amram J. Cohen, MD, MAJ, Brent A. Grishkin, MD, COL, Robert A. Helsel, MD, COL, and Harold D. Head, MD, COL (RET), All MC, USA

Correspondence

Removal of Guidewire Fragment 638
Paul E. Seifert, MD, and James E. Auer, MD

Reply 638
Michael S. Proctor, MD, and Lear Von Koch, MD

Holter Monitoring for Bifascicular Block After Coronary Artery Bypass Operation 638
Ian Malcolm, MD

Assessment of Exercise Oxygen Consumption: Reply 639
Lewis Wetstein, MD, and Daniel Bechard, MD

Adjustable Annuloplasty for Tricuspid Insufficiency 639
Julio C. Davila, MD

Review of Recent Books

Management of Esophageal Disease, edited by David B. Skinner and Ronald H. R. Belsey 568
Thomas W. Shields, MD

Gastroesophageal Reflux, edited by Glyn G. Jamieson and André Duranceau 585
Earle W. Wilkins, Jr, MD

Heart Valve Replacement and Future Trends in Cardiac Surgery, edited by Gregorio Rabago and Denton A. Cooley 619
John G. Jacobson, MD

Announcements

Forthcoming Articles	**A-14**
Information for Authors	**A-19, 20**
Notice From The Society of Thoracic Surgeons	**516, 538**
Notice From the American Board of Thoracic Surgery	**579, 604**
Notice From the Southern Thoracic Surgical Association	**599**
Notice From the American Board of Laser Surgery	**627**
Call for Abstracts, the Southern Thoracic Surgical Association	**A-31, 32**
Events of Interest	**A-33, 34**
Classified Ads	**A-35, 36, 37, 38, 39**
Index to Advertisers	**A-46**

Number 5 May 1989

Editorials

More Attempts to Monitor Quality Assurance for Myocardial Revascularization **641**

D. Craig Miller, MD

Management of Subaortic Stenosis in the Univentricular Heart **643**

George A. Trusler, MD, and Robert M. Freedom, MD

Risks of Cardiac Transplantation **645**

Eric A. Rose, MD

Original Articles

A Quality Assurance Model of Operative Mortality in Coronary Artery Surgery **646**

Fred H. Edwards, MD, Robert A. Albus, MD, Rostik Zajtchuk, MD, Geoffrey M. Graeber, MD, and Michael Barry, MD

Exploratory Analysis of Time-Dependent Risk for Infection, Rejection, and Death After Cardiac Transplantation **650**

Peter S. Greene, MD, Duke E. Cameron, MD, Sharon Augustine, RN, Timothy J. Gardner, MD, Bruce A. Reitz, MD, and William A. Baumgartner, MD

A Comparison of Mitral Valve Reconstruction With Mitral Valve Replacement: Intermediate-Term Results **655**

A. C. Galloway, MD, S. B. Colvin, MD, F. G. Baumann, PhD, E. A. Grossi, MD, G. H. Ribakove, MD, S. Harty, RN, and F. C. Spencer, MD

Myocardial Adenine Nucleotide Metabolism in Pediatric Patients During Hypothermic Cardioplegic Arrest and Normothermic Ischemia **663**

Gary K. Lofland, MD, Anwar S. Abd-Elfattah, PhD, Richard Wyse, PhD, Marc de Leval, MD, Jaroslav Stark, MD, and Andrew S. Wechsler, MD

Preoperative Chemotherapy and Irradiation for Stage III Non-Small Cell Lung Cancer 669

L. Penfield Faber, MD, C. Frederick Kittle, MD, William H. Warren, MD, Philip D. Bonomi, MD, Samuel G. Taylor IV, MD, Salitha Reddy, MD, and Myung-Sook Lee, MD

Automated Control of Postoperative Hypertension: A Prospective, Randomized Multicenter Study 678

Delos M. Cosgrove III, MD, John H. Petre, PhD, John L. Waller, MD, Jonathan V. Roth, MD, Carol Shepherd, RN, and Lawrence H. Cohn, MD

Coronary Sinus Versus Aortic Root Perfusion With Blood Cardioplegia in Elective Myocardial Revascularization 684

Andrew C. Fiore, MD, Keith S. Naunheim, MD, George C. Kaiser, MD, Vallee L. Willman, MD, Lawrence R. McBride, MD, D. Glenn Pennington, MD, and Hendrick B. Barner, MD

Spontaneous Rupture of the Esophagus: A 30-Year Experience 689

James W. Pate, MD, William A. Walker, MD, F. Hammond Cole, Jr, MD, Edmond W. Owen, MD, and William H. Johnson, MD

Bronchoscopic Phototherapy at Comparable Dose Rates: Early Results 693

Harvey I. Pass, MD, Thomas Delaney, MD, Paul D. Smith, PhD, Robert Bonner, PhD, and Angelo Russo, MD, PhD

Carcinoma of the Esophagus: A Comparison of the Results of Transhiatal Versus Transthoracic Resection 700

John R. Hankins, MD, Safuh Attar, MD, Thomas R. Coughlin, Jr, MD, John E. Miller, MD, John R. Hebel, PhD, Charles M. Suter, PhD, and Joseph S. McLaughlin, MD

Right Gastroepiploic Artery: A Third Arterial Conduit for Coronary Artery Bypass 706

Noel L. Mills, MD, and Charles T. Everson, MD

Myocardial Revascularization With Combined Arterial Grafts Utilizing the Internal Mammary and the Gastroepiploic Arteries 712

Hisayoshi Suma, MD, Atsuro Takeuchi, MD, and Yuzo Hirota, MD

Right Gastroepiploic Artery as a Coronary Bypass Graft 716

Kalervo Verkkala, MD, Antero Järvinen, MD, Pekka Keto, MD, Kari Virtanen, MD, Aarno Lehtola, MD, and Timo Pellinen, MD

Mitral Valve Replacement in the First 5 Years of Life 720

Thomas N. Zweng, MD, Michael K. Bluett, MD, Ralph Mosca, MD, Louise B. Callow, RN, MSN, and Edward L. Bove, MD

Modified Reperfusate After Long-Term Preservation of the Heart 725

Jeffrey C. Milliken, MD, Anne M. Billingsley, MD, and Hillel Laks, MD

Right Ventricular Free Wall Ischemia: Correlation of Ischemic Duration With Extent of Infarction in Dogs 729

William E. Johnston, MD, Jakob Vinten-Johansen, PhD, Anant Patel, BA, and William P. Santamore, PhD

Hospital Costs and Resource Characteristics for Cardiothoracic Surgical Hospital Deaths 735

Eric Muñoz, MD, MBA, John Luber, MD, Elisa Birnbaum, MD, Katherine Mulloy, AS, Jon R. Cohen, MD, and Leslie Wise, MD

True Thymic Hyperplasia: A Clinicopathological Study 741

C. Ricci, MD, FCCP, E. Pescarmona, MD, E. A. Rendina, MD, F. Venuta, MD, L. P. Ruco, MD, and C. D. Baroni, MD

Akinetic Versus Dyskinetic Left Ventricular Aneurysms Diagnosed by Gated Scintigraphy: Difference in Surgical Outcome 746

Arild Mangschau, MD

Use of an Intraaortic Balloon Pump as a Pneumatic Ventricular Assist Device Controller 752

D. J. Macrae, BMSc, FFARCS, B. Glenville, BSc, FRCSE, T. McCarthy, BSc, L. Cooper, HND, D. Guerreiro, BSc, and D. N. Ross, FRCS

Different Responses of Coronary Artery and Internal Mammary Artery Bypass Grafts to Ergonovine and Nitroglycerin in Variant Angina 756

Soichiro Kitamura, MD, Ryuichi Morita, MD, Kanji Kawachi, MD, Sogo Iioka, MD, Toshio Seki, MD, Kiyoshi Inoue, MD, and Shigeki Taniguchi, MD

Direct Tricuspid Closure Versus Atrial Partitioning in Fontan Operation for Complex Lesions 761

Serafin Y. DeLeon, MD, Michel N. Ilbawi, MD, Farouk S. Idriss, MD, Carl L. Backer, MD, Shigeaki Ohtake, MD, Vincent R. Zales, MD, Alexander J. Muster, MD, and D. Woodrow Benson, Jr, MD

Case Reports

Treatment of Bulboventricular Foramen Stenosis by Ventricle–Ascending Aorta Valved-Conduit Bypass 765

Morrison C. Bethea, MD, and James L. Reynolds, MD

Gastrotracheal Fistula: A Late Complication After Transhiatal Esophagectomy 767

Irving L. Kron, MD, Alan M. Johnson, MD, and Raymond F. Morgan, MD

Combined Ascending Aorta Rupture and Left Main Bronchus Disruption From Blunt Chest Trauma 769

J. Marzelle, MD, R. Nottin, MD, Ph. Dartevelle, MD, F. Lacour Gayet, MD, M. Navajas, MD, and A. Rojas Miranda, MD

Malignant Fibrous Histiocytoma Associated With a Dacron Vascular Prosthesis 772

Hugh S. Paterson, MB, BS, David J. Meredith, FRCPA, and David R. Craddock, FRACS

Malignant Fibrous Histiocytoma Obstructing the Thoracic Aorta 775

Adam Guttentag, MD, Harold L. Lazar, MD, Peter Franklin, MD, Alan Greenfield, MD, Marie Malachowski, MD, Leslie Blackhall, MD, and Richard J. Shemin, MD

Traumatic Aorto–Right Atrial Fistula After Blunt Chest Injury 778

Hang Chang, MD, Shu-Hsun Chu, MD, and Yuan-Teh Lee, MD

How to Do It

Right Mini-thoracotomy: An Adjunct to Left Subcostal Automatic Implantable Cardioverter Defibrillator Implantation 780

Gerald M. Lawrie, MD, Raj R. Kaushik, MD, and Antonio Pacifico, MD

Thoracotomy Through the Auscultatory Triangle 782

Michael D. Horowitz, MD, Nelson Ancalmo, MD, and John L. Ochsner, MD

Extended Use of a Pulmonary Homograft for Right Ventricular Outflow Tract Reconstruction 784

G. D. Angelini, MD, FRCS, and J. M. Quaegebeur, MD

Chemical Pleurodesis in the Presence of Persistent Air Leak 786

G. Hossein Almassi, MD, and George B. Haasler, MD

Classics in Thoracic Surgery

Hypothermia: Its Possible Role in Cardiac Surgery 788

Will C. Sealy, MD

Key References

Mechanical Cardiac Assistance 792

D. Glenn Pennington, MD

Correspondence

Stapling of Left Atrial Appendage 794

R. W. Landymore, MD, FRCSC

Reply 794

Verdi J. DiSesa, MD, and Lawrence H. Cohn, MD

High-Frequency Ventilation During Dissection of the Internal Mammary Artery 794

John P. Judson, MD

Repair of Fractured Wire During Sternal Closure 794

Guillermo Malavé, MD

Review of Recent Books

Brain Injury and Protection During Heart Surgery, edited by Mark Hilberman 740

Carlos E. Moreno-Cabral, MD

Manual of Postoperative Management in Adult Cardiac Surgery, by Carlos E. Moreno-Cabral, R. Scott Mitchell, and D. Craig Miller 755

Karl E. Karlson, MD

Cardiac Surgery. Safeguards and Pitfalls in Operative Technique, by Siavosh Khonsari 771

John W. Hammon, Jr, MD

Computed Tomography of the Chest: A Teaching File, by M. Elon Gale and Joel B. Karlinsky 793

Linda K. Olson, MD

Announcements

Forthcoming Articles A-14

Information for Authors A-17, 18

Notice From The Society of Thoracic Surgeons 677

Notice From the American Board of Thoracic Surgery 719, 768

Notice From the Southern Thoracic Surgical Association 745

Notice From the American Board of Laser Surgery 777

Events of Interest A-37, 38

Classified Ads A-39, 40, 41, 42

Index to Advertisers A-45

Number 6 June 1989

Editorials

About Viability in Valve Grafts 795

Norman E. Shumway, MD

The Malignancy of Large Cell Lung Carcinomas 796

Raymond Yesner, MD

Free Radicals: The Reperfusion Ninja 798

Andrew S. Wechsler, MD

Original Articles

Viable and Nonviable Aortic Homografts in the Subcoronary Position: A Comparative Study 799

E. Bodnar, MD, O. Matsuki, MD, R. Parker, BSc, and D. N. Ross, FRCS

Large Cell Carcinoma of the Lung: A Highly Aggressive Tumor With Dismal Prognosis 806

Richard S. Downey, MD, C. Whitaker Sewell, MD, and Kamal A. Mansour, MD

Enhanced Myocardial Protection With Adenosine 809

Steven F. Bolling, MD, Lawrence E. Bies, BS, Kim P. Gallagher, PhD, and Edward L. Bove, MD

Emergency Coronary Artery Bypass Grafting for Failed Angioplasty: Risk Factors and Outcome 816

Keith S. Naunheim, MD, Andrew C. Fiore, MD, David C. Fagan, MD, Lawrence R. McBride, MD, Hendrick B. Barner, MD, D. Glenn Pennington, MD, Vallee L. Willman, MD, Morton J. Kern, MD, Ubeydullah Deligonul, MD, Michel C. Vandormael, MD, and George C. Kaiser, MD

Correlates of Survival in Patients With Postinfarction Ventricular Septal Defect 824

Robin G. Cummings, MD, Robert Califf, MD, Robert N. Jones, MD, Keith A. Reimer, MD, PhD, Yi-Hong Kong, MD, and James E. Lowe, MD

Ten Years' Experience With the St. Jude Medical Valve Prosthesis 831

Kit V. Arom, MD, PhD, Demetre M. Nicoloff, MD, PhD, Thomas E. Kersten, MD, William F. Northrup III, MD, William G. Lindsay, MD, and Robert W. Emery, MD

Transsternal Radical Thymectomy for Myasthenia Gravis: A 15-Year Review 838

Paul D. Hatton, MD, James T. Diehl, MD, Benedict D. T. Daly, MD, Harold F. Rheinlander, MD, Hubert Johnson, MD, Joseph B. Schrader, BA, Marc Bloom, MD, and Richard J. Cleveland, MD

Intralobar Sequestration. A Missed Diagnosis 841

Robert A. Gustafson, MD, Gordon F. Murray, MD, Herbert E. Warden, MD, Ronald C. Hill, MD, and G. Edward Rozar, MD

Postoperative Preservation of Pulmonary Function in Patients With Chronic Empyema Thoracis: A One-Stage Operation 848

Kazuya Nakaoka, MD, Kazuya Nakahara, MD, Sogo Iioka, MD, Takashi Mori, MD, Kenji Sawamura, MD, and Yasunaru Kawashima, MD

Aneurysms After Patch Graft Aortoplasty for Coarctation of the Aorta: Long-Term Results of Surgical Management 853

Kari Ala-Kulju, MD, and Leo Heikkinen, MD

Effect of Surgical Blood Loss and Volume Replacement on Antibiotic Pharmacokinetics 857

Doris Sue, PharmD, Theresa A. Salazar, PharmD, Kevin Turley, MD, and B. Joseph Guglielmo, PharmD

Eighteen to 37 Hours' Preservation of Major Organs Using a New Autoperfusion Multiorgan Preparation 860

Sufan Chien, MD, John N. Diana, PhD, Peter R. Oeltgen, PhD, Edward P. Todd, MD, PhD, William N. O'Connor, MD, and W. Randolph Chitwood, Jr, MD

Tension Pneumothorax During Extracorporeal Membrane Oxygenation 868

Joseph B. Zwischenberger, MD, Robert M. Bowers, BS, and G. John Pickens, BBA

Mitral Valve Function After Cryoablation of the Posterior Papillary Muscle in the Dog 872

Gerard M. Guiraudon, MD, FRCS(C), Colette M. Guiraudon, MD, FRCS(C), Douglas G. McLellan, BSc, MA, and James L. MacDonald, CCP

Surgical Management of Aortopulmonary Septal Defect 877

T. Rajendra Prasad, MS, M. S. Valiathan, ChM, FRCS, FRCS(C), K. G. Shyamakrishnan, MCh, and C. G. Venkitachalam, MD, DM

Disrupted Coronary Artery Caused by Angioplasty: Supportive and Surgical Considerations 880

Steven J. Phillips, MD, Chamnahn Kongtahworn, MD, Robert H. Zeff, MD, James R. Skinner, MD, Richard S. Toon, MD, André Grignon, MD, Mark Spector, DO, and L. A. Iannone, MD

Incidence of Atherosclerosis in the Internal Mammary Artery 884

Tero Sisto, MD, and Jorma Isola, MD

Nd:YAG Laser Pleurodesis Through Thoracoscopy: New Curative Therapy in Spontaneous Pneumothorax 887

Massimo Torre, MD, and Pierangelo Belloni, MD

Physiological Changes During Temporary Occlusion of the Superior Vena Cava in Cynomolgus Monkeys 890

Hideo Masuda, MD, Toshirou Ogata, MD, and Keiichi Kikuchi, MD

Determinants of Homologous Blood Usage Utilizing Autologous Platelet-Rich Plasma in Cardiac Operations 897

Gerald F. Giordano, Sr, MD, Gerald F. Giordano, Jr, Shirley L. Rivers, MD, George K. T. Chung, MD, Robert B. Mammana, MD, Joseph D. Marco, MD, Allen R. Raczkowski, MD, Adib Sabbagh, MD, Richard G. Sanderson, MD, and Burt S. Strug, MD

Extracorporeal Membrane Oxygenation for Postcardiotomy Cardiogenic Shock in Children 903

Ancel J. Rogers, MD, Alfredo Trento, MD, Ralph D. Siewers, MD, Bartley P. Griffith, MD, Robert L. Hardesty, MD, Elfriede Pahl, MD, Lee B. Beerman, MD, Frederick J. Fricker, MD, and Donald R. Fischer, MD

Myocardial Preservation Related to Magnesium Content of Hyperkalemic Cardioplegic Solutions at 8°C 907

Tommy R. Reynolds, MD, Gillian A. Geffin, MB, BS, James S. Titus, Dennis D. O'Keefe, MD, and Willard M. Daggett, MD

Case Reports

Detection of Cold Hemagglutination in a Blood Cardioplegia Unit Before Systemic Cooling of a Patient With Unsuspected Cold Agglutinin Disease 914

Sue Boettcher Dake, BS, CCP, Marilyn F. M. Johnston, MD, PhD, Patricia Brueggeman, CCP, and Hendrick B. Barner, MD

Successful Repair of Left Ventricular Rupture After Redo Mitral Valve Replacement **916**

J. S. Dhillon, MD, G. K. Randhawa, MD, and S. B. Pett, Jr, MD

Amiodarone-Induced Pulmonary Mass **918**

William Piccione, Jr, MD, L. Penfield Faber, MD, and Marvin S. Rosenberg, MD

Mediastinal Involvement by Myxoid Liposarcoma **920**

Thomas R. McLean, MD, G. Hossein Almassi, MD, Donald A. Hackbarth, MD, Nora A. Janjan, MD, and Roger A. Potish, MD

Late Postoperative Cardiac Tamponade Presenting as Dysphagia **922**

A. J. Bryan, FRCS, C. F. M. Weston, MRCP, and G. D. Angelini, FRCS

Traumatic Laceration of a Saphenous Vein Graft: Successful Surgical Repair **924**

Atsushi Harada, MD, Takayuki Sakakibara, MD, Kimitoshi Horiba, MD, Hiroaki Takenaka, MD, Takao Ida, MD, and Yoshio Obunai, MD

How to Do It

New Clamp for Intraoperative Chest Tube Placement **926**

Harold Stern, MD, and Ronald B. Ponn, MD

Interlocking Figure-of-8 Closure of the Sternum **927**

R. F. Di Marco, Jr, MD, M. W. Lee, MD, S. Bekoe, MD, K. J. Grant, MD, G. F. Woelfel, MD, and R. V. Pellegrini, MD

Allograft Aortic Valve Replacement for Bicuspid Aortic Valves With 180-Degree Coronary Ostia **930**

Richard A. Hopkins, MD

Classics in Thoracic Surgery

Unterdruck and Überdruck, 1904 **933**

John A. Meyer, MD

Current Review

Free Radicals and Myocardial Protection: A Surgical Viewpoint **939**

Philippe Menasché, MD, PhD, and Armand Piwnica, MD

Report

The Society of Thoracic Surgeons Ad Hoc Committee on AIDS. Report to the Membership **946**

Correspondence

Central Aortopulmonary Shunt Using Gore-Tex: The Modified Davidson Shunt? 949

J. R. L. Hamilton and D. R. Walker

Reply 949

Arthur DeBoer, MD

Reporting the Results of Heart Valve Operations 949

Samer A. M. Nashef, FRCS, and W. H. Bain, MD, FRCS

Reply 950

L. Henry Edmunds, Jr, MD, Richard E. Clark, MD, Lawrence H. Cohn, MD, D. Craig Miller, MD, and Richard D. Weisel, MD

Review of Recent Books

The Heart Surgery Handbook. A Patient's Guide, by C. Cohan, J. B. Pimm, and J. R. Jude 815

Benson B. Roe, MD

Cardiac Valve Allografts 1962–1987. Current Concepts on the Use of Aortic and Pulmonary Allografts for Heart Valve Substitutes, edited by A. C. Yankah, R. Hetzer, D. C. Miller, D. N. Ross, J. Somerville, and M. H. Yacoub 830

Pedro J. del Nido, MD

Progress in Critical Care Medicine. Volume 3. Critical Care Cardiology, Series Editor, Walter H. Massion, Volume Editor, Jeffrey L. Anderson 883

Julie A. Swain, MD

Intravascular and Intracardiac Interventional Catheter Therapy. Techniques and Instrumentation, edited by T. Bonzel and P. W. Serruys 913

Timothy J. Gardner, MD

Treatment of End-Stage Coronary Artery Disease, edited by P. J. Walter 929

John E. Connolly, MD

Announcements

Information for Authors A-19, 20

Forthcoming Articles A-24

Notice From The Society of Thoracic Surgeons 805

Notice From the Southern Thoracic Surgical Association 823

Notice From the American Board of Thoracic Surgery 856, 889

Notice From the American Board of Laser Surgery 938

Events of Interest A-39, 40

Classified Ads A-41, 42, 43

Index to Advertisers A-45

Index to Volume 47

Author Index 951

Subject Index 963